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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/814,419

03/30/2004

Yoshifumi Nishida

SON5180.40A1

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05/17/2006

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EXAMINER

WENDELL, ANDREW

ART UNIT

PAPER NUMBER

2618

DATE MAILED: 05/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/814,419	<b>Applicant(s)</b> NISHIDA ET AL.	
	<b>Examiner</b> Andrew Wendell	<b>Art Unit</b> 2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on 12 April 2006.
- 2a) ☒ This action is FINAL.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) \_\_\_\_\_ is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-14, 16-29 and 31-49 is/are rejected.
- 7) ☒ Claim(s) 15 and 30 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |                                                                                         |                                                                             |
|-----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____                                                |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____                                                             | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-12, 18-25, 33-34, 42, and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Evans et al. (US Pat Appl# 2005/0277426) in view of Gray et al. (US Pat# 6,674,403).

Regarding claim 1, Evans et al. system for locating a mobile unit teaches a first network device 3 (Fig. 1) configured for wirelessly communicating beacon frames (Sections 0037 and 0039) which include signal strength information with at least a second network device 4 (Fig. 1); a motion monitoring module configured for continuously monitoring signal parameters within beacon frames (Section 0037 and 0039) when first network device is moved within a proximity of the second network device and a motion detection module configured for comparing the output of the analysis against a threshold to determine whether the first network device and the second network device have moved in or out of proximity with one another within a given time interval (Section 0039-0042). Evans et al. teaches about detecting proximity motion in response to signal strength (Section 0006 and 0010). However, Evans et al. fails to clearly teach about signal strength regression analysis.

Gray et al. position detection and location tracking in a wireless network teaches a regression analysis module configured for performing a regression analysis of signal strengths (Col. 4 lines 4-16, Col. 7 lines 44-55, Col. 9 lines 1-26, and Col. 10 lines 14-34).

Therefore, it would have been obvious at the time of the invention to one of ordinary skill in the art at the time the invention was made to incorporate signal strength regression analysis as taught by Gray et al. into Evans et al. system in order to accuracy and reliability of tracking (Col. 4 lines 63-64).

Regarding claim 2, the combination including Gray et al. teaches wherein the regression analysis is performed without regard to transmit power of the first network device (Col. 3 lines 42-56, teaches different analysis done such as obstructions).

Regarding claim 3, Evans et al. teaches a first network device configured for communicating wirelessly with at least a second network device (Section 0024); a computer processor with programming executable on the computer 8 (Fig. 2), 16 (Fig. 3), and 12 (Fig. 3) for, communicating beacon frames containing signal strength information between the first network device and the second network device (Section 0037 and 0039); and generating a proximity motion detection signal in response to the signal strength analysis performed during close proximity relative motion between the first network device and the second network device within a given time interval (Sections 0039-0042). Evans et al. teaches about detecting proximity motion in response to signal strength (Section 0006 and 0010). However, Evans et al. fails to clearly teach about signal strength regression analysis.

Gray et al. teaches means for performing a signal strength regression analysis on received signal strength information (Col. 4 lines 4-16, Col. 7 lines 44-55, Col. 9 lines 1-26, and Col. 10 lines 14-34); and generating a proximity motion detection signal in response the signal strength regression analysis performed during close proximity relative motion between the first network device and the second network device (Col. 3 lines 42-45).

Therefore, it would have been obvious at the time of the invention to one of ordinary skill in the art at the time the invention was made to incorporate signal strength regression analysis as taught by Gray et al. into Evans et al. system in order to accuracy and reliability of tracking (Col. 4 lines 63-64).

Regarding claim 4, the combination including Gray et al. teaches wherein the regression analysis is performed without regard to transmit power of the first network device (Col. 3 lines 42-56, teaches different analysis done such as obstructions).

Regarding claim 5, the combination including Evans et al. teaches the beacon frame is an IEEE 802.11 network formatted data frame (Section 0037).

Regarding claim 6, the combination including Evans et al. teaches transmitting beacon frames from the first network device acting as a sending wireless device for receipt by the second network device acting as a receiving wireless device, or from the second network device acting as a sending wireless device for receipt by the first network device acting as a receiving wireless device (Section 0042).

Regarding claim 7, the combination including Evans et al. teaches wherein programming is configured for accumulating (about every 20ms to 1s) a plurality of signal strength measurements for the analysis (Section 0039-0042).

Regarding claim 8, the combination including Evans et al. teaches wherein the programming module continuously monitors beacons frames (Section 0037), transmitted by the sending wireless device to the receiving wireless device at a predetermined transmission interval (Section 0039).

Regarding claim 9, the combination including Evans et al. teaches the possibility wherein the predetermined transmission interval is at or less than approximately 100 milliseconds (mS.) (Section 0039).

Regarding claim 10, the combination including Evans et al. teaches wherein the programming tunes an interval frequency for transmitting the beacon frames between the receiving wireless device and the sending wireless device (Sections 0039-0042).

Regarding claim 11, the combination including Evans et al. teaches wherein the programming is configured to detect motion in response to a defined signal strength change within the given time interval (Sections 0039-0042).

Regarding claim 12, the combination including Evans et al. teaches wherein motion is detected if the signal strength change of approximately 20dB arises within less than or equal to a time interval of approximately one second (0039).

Regarding claim 18, Evans et al. teaches continuously monitoring the strength of signals transmitted between the first wireless device and the second wireless device as a mobile device that is configured for moving toward the first wireless device (Sections

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0039-0042) and detecting proximity motion of the second wireless device with respect to the first wireless device in response to the analysis performed over a given time interval (Sections 0039-0042). Evans et al. teaches about detecting proximity motion in response to signal strength (Section 0006 and 0010). However, Evans et al. fails to clearly teach about signal strength regression analysis.

Gray et al. teaches regressively analyzing the monitored signal strength to determine the proximity motion of the second mobile wireless device with respect to the first target wireless device to determine whether a given proximity range is achieved (Col. 4 lines 4-16, Col. 7 lines 44-55, Col. 9 lines 1-26, and Col. 10 lines 14-34).

Therefore, it would have been obvious at the time of the invention to one of ordinary skill in the art at the time the invention was made to incorporate signal strength regression analysis as taught by Gray et al. into Evans et al. system in order to accuracy and reliability of tracking (Col. 4 lines 63-64).

Regarding claim 19, the combination including Evans et al. teaches the possibility of wherein the given proximity range is less than or equal to approximately 15 centimeters (Sections 0049).

Regarding claim 20, the combination including Evans et al. teaches wherein the given proximity range is less than or equal to approximately 5 centimeters (Section 0049).

Regarding claim 21, the combination including Evans et al. teaches wherein the detecting proximity motion is performed with no dependence on the type of the second

wireless device toward maintaining compatibility in a heterogeneous network environment (Sections 0001 and 0002).

Regarding claim 22, the combination including Evans et al. teaches wherein either the first target wireless device or the second wireless device is configured for sending or receiving beacon frames as the first target wireless device and the second wireless device communicate with one another (Sections 0037, 0039, and 0042).

Regarding claim 23, the combination including Evans et al. teaches wherein proximity motion is detected in response as the second wireless device is maneuvered towards the first target wireless device, wherein the distance between the first wireless device and the second mobile wireless device is reduced from equal to or greater than approximately 30 centimeters to less or equal to approximately 15 centimeters (Fig. 5 and sections 0033 and 0041).

Regarding claim 24, the combination including Evans et al. teaches wherein the signal strength of beacon frames is continuously monitored to accumulate a plurality of signal strength measurements (Sections 0037 and 0039-0040); and wherein regression analysis is performed as a function of time on accumulated signal strength measurements at a receiving device of either the first wireless device or the second wireless device to determine if the two wireless devices are in proximity motion in relation to one another (Section 0039).

Regarding claim 25, the combination including Evans et al. teaches calculating a difference between the strength of the signal at a designated time with respect to a



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time prior to the designated time to determine the strength of the signal as the second wireless device approaches the first wireless device (Sections 0006 and 0039).

Regarding claim 33, Evans et al. teaches continuously monitoring beacon frames transmitted by the second sending wireless node to the first receiving wireless node (Sections 0039 and 0040); recording the signal strength information contained in the beacon frames transmitted by the second sending wireless node (Section 0040); retaining accumulated signal strength information in the first wireless node (Sections 0040 and 0041); and analyzing the signal strength information within a given time interval to determine if proximity motion of the second wireless node with respect to the first wireless node has occurred (Sections 0039-0042). Evans et al. teaches about detecting proximity motion in response to signal strength (Section 0006 and 0010). However, Evans et al. fails to clearly teach about signal strength regression analysis.

Gray et al. teaches regressively analyzing the accumulated signal strength information to determine the proximity motion of the second wireless node with respect to the first wireless node (Col. 4 lines 4-16, Col. 7 lines 44-55, Col. 9 lines 1-26, and Col. 10 lines 14-34).

Therefore, it would have been obvious at the time of the invention to one of ordinary skill in the art at the time the invention was made to incorporate signal strength regression analysis as taught by Gray et al. into Evans et al. system in order to accuracy and reliability of tracking (Col. 4 lines 63-64).

Regarding claim 34, the combination including Gray et al. teaches wherein the regressively analyzing of the accumulated signal strength information comprises

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calculating the difference in the signal strength with respect to a signal period over which the signal strength information has been accumulated (Col. 4 lines 4-16 and Col. 10 lines 14-34).

Regarding claim 42, Evans et al. teaches calculating signal strength difference between the mobile wireless device and the stationary wireless device as the mobile wireless device approaches the stationary wireless device (Sections 0039-0042); and analyzing signal strength differences during a signal sampling period; and determining, based on the analyzing, whether the mobile wireless device has moved into proximity with respect the stationary wireless device within a given period of time (Sections 0039-0042). Evans et al. teaches about detecting proximity motion in response to signal strength (Section 0006 and 0010). However, Evans et al. fails to clearly teach about signal strength regression analysis.

Gray et al. teaches regressively analyzing signal strength differences during a signal sampling period; and determining, based on the regressively analyzing, whether the mobile wireless device has moved into proximity with respect the stationary wireless device within a given period of time (Col. 4 lines 4-16, Col. 7 lines 44-55, Col. 9 lines 1-26, and Col. 10 lines 14-34).

Therefore, it would have been obvious at the time of the invention to one of ordinary skill in the art at the time the invention was made to incorporate signal strength regression analysis as taught by Gray et al. into Evans et al. system in order to accuracy and reliability of tracking (Col. 4 lines 63-64).

Regarding claim 44, the combination including Evans et al. teaches wherein calculating signal strength difference between the mobile wireless device and the fixed wireless device is performed with respect to accumulated signal strength information within a plurality of recorded signal strength samples (Sections 0039-0042).

3. Claims 13-14, 16, 26-29, 31, 35-40, and 45-49 are rejected under 35 U.S.C. 103(a) as being unpatentable over Evans et al. (US Pat Appl# 2005/0277426) in view of Gray et al. (US Pat# 6,674,403) and in further view of Nardone et al. (IEEE Journal, "A Closed-Form Solution to Bearings-Only Target Motion Analysis," copyright 1997).

Regarding claim 13, the combination of Evans et al. in view of Gray et al. teaches the limitations in claim 12. Both Evans et al. and Gray et al. fail to teach about a regression coefficient.

Nardone et al. teaches wherein the analysis module is configured for calculating a regression coefficient of the difference in data points of the recorded set of data points (Page 169, last paragraph in the left column).

Therefore, it would have been obvious at the time of the invention to one of ordinary skill in the art at the time the invention was made to incorporate a regression coefficient as taught by Nardone et al. into signal strength regression analysis as taught by Gray et al. into Evans et al. system in order to improve noise cancellation and process information of interest (Page 175, Conclusion).

Regarding claim 14, the combination including Nardone et al. teaches wherein the regression analysis module is configured to calculate a coefficient of determination

in the data points for the recorded set of data points (Page 169, last paragraph in the left column).

Regarding claim 16, Nardone et al. teaches the possibility wherein motion is detected in response to calculating a regression coefficient and determining that the coefficient of determination exceeds the regression coefficient (Page 169, last paragraph in the left column and abstract).

Regarding claim 26, the combination including Nardone et al. teaches wherein the regressively analyzing the signals further comprise linearly analyzing a difference in data points for the accumulated data points information with respect to the number sample signals within the accumulated data points over a period of time (Page 169, last paragraph in the left column).

Regarding claim 27, the combination including Nardone et al. teaches further comprising calculating a regression coefficient of the difference in the data points of the accumulated set of data points (Page 169, last paragraph in the left column).

Regarding claim 28, the combination including Nardone et al. teaches further comprising calculating a coefficient of determination of the difference in the data points for the accumulated data information (Page 169, last paragraph in the left column).

Regarding claim 29, the combination including Evans et al. teaches further comprising calculating an increase in the signal strength from the start to the end of a proximity motion by the second wireless device (Sections 0039-0040).

Regarding claim 31, Nardone et al. teaches the possibility wherein motion is detected in response to calculating a regression coefficient and determining that the

coefficient of determination exceeds the regression coefficient (Page 169, last paragraph in the left column and abstract).

Regarding claim 35, the combination including Nardone et al. teaches further comprising linearly analyzing the differences in the data points with respect to the number of data values which have been accumulated to generate a coefficient of determination (Page 169, last paragraph in the left column).

Regarding claim 36, the combination including Nardone et al. teaches further comprising linearly analyzing the differences in the data points with respect to the number of data values which have been accumulated to generate a coefficient of determination (Page 169, last paragraph in the left column).

Regarding claim 37, the combination including Evans et al. teaches further comprising calculating the increase in signal strength from the start to the end of accumulated signal strength information to detect a proximity motion of the first and the second wireless devices with respect to one another (Sections 0039-0041).

Regarding claim 38, the combination including Nardone et al. teaches the possibility of wherein motion is detected in response to the regression coefficient of approximately 0.70 (Page 169, last paragraph in the left column).

Regarding claim 39, the combination including Nardone et al. teaches the possibility of wherein proximity motion is detected in response to the regression coefficient of approximately 0.75 (Page 169, last paragraph in the left column).

Regarding claim 40, the combination including Evans et al. teaches wherein proximity motion is detected in response to a predetermined threshold value (Sections

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0039-0041). Both Evans et al. and Gray et al. fails to teach about a regression coefficient.

Nardone et al. teaches a regression coefficient (Page 169, last paragraph in the left column).

Therefore, it would have been obvious at the time of the invention to one of ordinary skill in the art at the time the invention was made to incorporate a regression coefficient as taught by Nardone et al. into signal strength regression analysis as taught by Gray et al. into Evans et al. system in order to improve noise cancellation and process information of interest (Page 175, Conclusion).

Regarding claim 45, the combination including Gary et al. teaches performing a linear regression analysis on the difference in signal strength on the signals transmitted between the mobile wireless device and the fixed wireless device with respect to the number of samples (Col. 4 lines 4-16, Col. 7 lines 44-55, Col. 9 lines 1-26, and Col. 10 lines 14-34). Both Gary et al. and Evans et al. fail to teach about a regression coefficient.

Nardone et al. teaches a regression coefficient of a signal (Page 169, last paragraph in the left column).

Therefore, it would have been obvious at the time of the invention to one of ordinary skill in the art at the time the invention was made to incorporate a regression coefficient as taught by Nardone et al. into signal strength regression analysis as taught by Gray et al. into Evans et al. system in order to improve noise cancellation and process information of interest (Page 175, Conclusion).

Regarding claim 46, method claim 46 is rejected for the same reason as method claim 45 since the recited element would perform the claimed steps.

Regarding claim 47, the combination including Evans et al. teaches wherein proximity motion of a mobile wireless device with relative to a fixed wireless device is detected in response to a threshold value (Sections 0039-0041). Both Evans et al. and Gray et al. fails to teach about a coefficient of determination.

Nardone et al. teaches a regression coefficient (Page 169, last paragraph in the left column).

Therefore, it would have been obvious at the time of the invention to one of ordinary skill in the art at the time the invention was made to incorporate a coefficient of determination as taught by Nardone et al. into signal strength regression analysis as taught by Gray et al. into Evans et al. system in order to improve noise cancellation and process information of interest (Page 175, Conclusion).

Regarding claim 48, the combination including Nardone et al. teaches the possibility of wherein the threshold value for the coefficient of determination is approximately 0.70 (Page 169, last paragraph in the left column).

Regarding claim 49, the combination including Nardone et al. teaches the possibility of wherein the threshold value for the coefficient of determination is approximately 0.75. (Page 169, last paragraph in the left column).

4. Claims 17, 32 and 41 is rejected under 35 U.S.C. 103(a) as being unpatentable over Evans et al. (US Pat Appl# 2005/0277426) in view of Gray et al. (US Pat# 6,674,403) in view of Nardone et al. (IEEE Journal, "A Closed-Form Solution to

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Bearings-Only Target Motion Analysis," copyright 1997) and in further view of Agrawala et al. (US Pat Appl# 2005/0243936).

Regarding claim 41, the combination including Evans et al. in view of Gray et al. in view of Nardone et al. teaches the limitations in claim 40. Evans et al., Gray et al., and Nardone et al. fail to teach about a pre-calibrated signal strength.

Agrawala et al. method for determining user location in a wireless communication network teaches further comprising pre-calibrating the increase in signal strength prior to using increases in the signal strength (Section 0016 and 0030) by the regression analysis scheme to determine proximity motion between the first and the second wireless devices (Sections 0044-0045 and 0057).

Therefore, it would have been obvious at the time of the invention to one of ordinary skill in the art at the time the invention was made to incorporate a pre-calibrated signal strength as taught by Agrawala et al. into a regression coefficient as taught by Nardone et al. into signal strength regression analysis as taught by Gray et al. into Evans et al. system in order to reduce hardware, improve spatial resolution, and reducing costs (Section 0015).

Regarding claim 17, Agrawala et al. further teaches wherein the increase in the signal strength is pre-calibrated prior to performing the regression analysis on the accumulated signal strength information (Sections 0044-0045 and 0057).

Regarding claim 32, Agrawala et al. further teaches wherein the increase in the signal strength is pre-calibrated prior to performing the regression analysis on the accumulated signal strength information (Sections 0044-0045 and 0057).



5. Claim 43 is rejected under 35 U.S.C. 103(a) as being unpatentable over Evans et al. (US Pat Appl# 2005/0277426) in view of Gray et al. (US Pat# 6,674,403) as applied to claim 42 above, and further in view of Agrawala et al. (US Pat# 6,879,812).

Regarding claim 43, the combination including Evans et al. in view of Gray et al. teaches the limitation in claim 42. Both Evans et al. and Gray et al. fail to teach about an IBSS mode.

Agrawala et al. portable computing device teaches wherein the stationary wireless device and the mobile wireless device are configured in IBSS mode with one of the fixed wireless device and the mobile wireless device being configured as an access point node (Col. 8 line 58-Col. 9 line 4).

Therefore, it would have been obvious at the time of the invention to one of ordinary skill in the art at the time the invention was made to incorporate a IBSS mode as taught by Agrawala et al. into signal strength regression analysis as taught by Gray et al. into Evans et al. system in order to correct network problems faster (Col. 1 lines 28-67).

***Allowable Subject Matter***

6. Claims 15 and 30 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Response to Arguments***

Applicant's Remarks	Examiner's Response
Regarding claim 1, "...Evans does not	Evans teaches in section 0006 a

teach a mechanism for detecting if proximal motion is occurring, but instead clearly describes a mechanism for detecting which nodes are within range.”	mechanism for detecting location of a mobile device which is detecting motion. The mobile device can and is moving at different times and therefore motion or location is being monitored.
Regarding claim 1, “Yet, the Gray reference does not teach regression analysis at all.”	In the sections mentioned in claim 1 teaches that Gray has a signal strength model. Gray points out in Col. 4 line 16 that the model can be a Markov model. The model is doing statistical analysis which is the same as applicant’s invention according to claimed limitations. The model is used to detect motion or location as stated in Col. 3 lines 57-67).
Regarding claim 1, “In addition, the Applicant respectfully submits that Gray is not combinable with Evans.”	Gray and Evans both teach location tracking for use in a wireless network and the motivation stated in the claims support that Gray and Evans are both combinable.
Regarding claim 3 remarks.	See above responses for claim 1.
Regarding claim 18 remarks.	Again see above responses for claim 1.
Regarding claim 33, “There is no discussion of retaining these	Gray helps support retaining measurements. As stated in the recited

measurements, nor any need or benefit ascribed to doing so.”	sections in claim 33, Gray teaches collecting information and using it to model analysis. The collected information is retained in order to be able to model out the analysis.
Regarding claim 42, “There is no discussion of comparing variations of these comparisons.”	How the examiner reads the claim, this remark is not claimed in 42. Examiner does not see any limitation dealing with comparing variations.
Regarding claim 10, “...Evans provides no such teaching, and instead merely discusses detecting signals and the inclusion of location information within a beacon frame, neither of which comport to tuning the transmission interval.”	Evan’s system deals with a wireless network and transmitting beacon frames at interval frequency. In order to transmit information there is some tuning involved for transmission in a wireless network.
Regarding claims 19-20, “However, Evans teaches away from these ranges with the distances described being at the far end of communication, which is the object of Evans, at 10 to 30 meters.”	The claims read as “ <b>approximately</b> ” 5 or 15 centimeters. Evans teaches a certain range and it can be approximately 5 or 15 centimeters.
Regarding claims 13-14, 26-29, 35-40, and 45-49, “That the paper of Nardone	On page 169, last paragraph on the left column teaches a regression coefficient. It

contains phrases associated with regression analysis, does not automatically make obvious any system making use of regression principles.”	is doing statistical analysis which is the same as applicant’s invention.
Regarding claims 13-14, 26-29, 35-40, and 45-49, “..HOW such a combination could be effected and for what specific purpose in keeping with the objects of the other references.”	On page 168, the abstract and introduction of Nardone teaches measuring range, bearing, course, and speed. It is measuring location or motion which is the same as the other inventions.

***Conclusion***

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

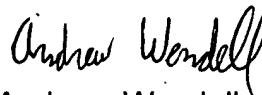
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew Wendell whose telephone number is 571-272-0557. The examiner can normally be reached on 7:30-5 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nay Maung can be reached on 571-272-7882. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Andrew Wendell  
Examiner  
Art Unit 2618

5/12/2006

  
**NAY MAUNG**  
**SUPERVISORY PATENT EXAMINER**